



VJ SERIES

5000-8000-10000-12000-15000-20000 W

Main features

- Motorized tuning for input, plate and load, capable of covering the entire 87.5 to 108 MHz band
- High efficiency low pass filter
- High overall efficiency
- Remote control
- Highly accurate direct and reflected power metering
- Timing of electronic start with Time saving
- Power supply on carriage dismountable in order to facilitate the transport and the maintenance
- Meets or exceeds all FCC and CCIR requirements
- VSWR, grid current, plate current, temperature, safety interlocks, airflow failure protection circuits and unbalanced A.C. line
- No neutralization required
- Display of the number of interventions
- Advanced recycling overload and protection system that provides automatic re-start after about 30 seconds of stand-by in case of fault. This procedure is repeated 9 times and in case of persisting fault the stop becomes permanent until a manual or remote control re-start is applied. If instead during one of the re-starts the fault disappears the counting circuit system is reset after a regular working period of 30 Minutes
- Foldback system on all the protection actions so as to not stop never completely the final but to hold the wave on air to not damage the amplifier

TUBE



Broadcast
EQUIPMENT

Maintenance

Improved access.
Ease of maintenance.



FM Tube Power Amplifier

87.5 - 108 MHz range

Black-Box event history recorder
Built-in remote control capability
Motorized tuning for input, plate and load, covering the entire 87.5 - 108 MHz range.



These specifications are subject to change without notice.



VJ 10000



VJ 15000



VJ 20000

On the VJ SERIES front panel, by an user-friendly graphic interface, all the amplifier diagnostic and control capabilities are displayed. The settings that can be monitored and adjusted are the following:



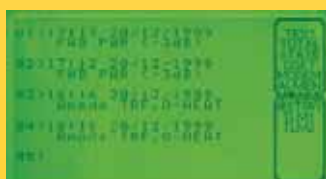
Test menu • Setting of the main working parameters of the transmitter.



Total menu • The main working parameters (FWD and RFL of the tetrode amplifier and of the driver, VG1, VG2, IG1, IG2, Vfil, Ifil, Temp, etc.) are displayed.



Status menu • Displays the status of buttons and leds of the protections card situated on the front panel of the transmitter.



General settings menu • Displays communication settings, node number in the case of networking and Baud-rate. Setting of the audio alarm and the "read and write" passwords.



Modem menu • Setting of the name of the station and memorization of a set of 5 telephone numbers for the alarm messages.



Almem menu • On/Off up to 16 types of alarms with the last 2 that can be used for customized operations.

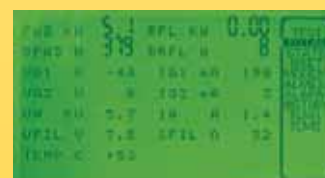
Alarm menu • Alarms list managing up to 5 alarms with FIFO (First In First Out) logic.

History menu • Report of the main values memorized in the last minutes before the alarm.

Telemetry menu • Displays the state of the signals of the first and the second telemetry card.

Hardware Highlits

The power supply is mounted on slide-out wheels in order to ease installation and maintenance operations.





AMPLIFIERS
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**R.F. Power Amplifier
FM 87.5 - 108
MHz range**

**VJ 5000
VJ 5000 TE/V1
VJ 5000 TE/V2**

	VJ 5000	VJ 5000 TE /V1	VJ 5000 TE /V2
Tube type	Triode	Triode	Triode
AC Power Source	Three Phase with neutral: 380-415V ± 15% Three Phase without neutral: 208-240V ± 15% (Single Phase 220-240V ± 15%, 50-60 Hz on request)	Three Phase with neutral: 380-415V ± 15% Three Phase without neutral: 208-240V ± 15% (Single Phase 220-240V ± 15%, 50-60 Hz on request)	Three Phase with neutral: 380-415V ± 15% Three Phase without neutral: 208-240V ± 15% (Single Phase 220-240V ± 15%, 50-60 Hz on request)
Frequency Range	87.5 – 108MHz (Other frequencies on request)	87.5 – 108MHz (Other frequencies on request)	87.5 – 108MHz (Other frequencies on request)
Power Output	5500W max, 5000W typical	5500W max, 5000W typical	5500W max, 5000W typical
Power consumption	Approx 10kW	Approx 10kW	Approx 10kW
RF Input Connector	N, LC, 7/16" type connector or EIA Flange 7/8"	N, LC, 7/16" type connector or EIA Flange 7/8"	N, LC, 7/16" type connector or EIA Flange 7/8"
RF input Impedance	50 Ω	50 Ω	50 Ω
RF Output Connector	EIA Flange 1+5/8" (EIA Flange 3+1/8" on request)	EIA Flange 1+5/8" (EIA Flange 3+1/8" on request)	EIA Flange 1+5/8" (EIA Flange 3+1/8" on request)
RF Output Impedance	50 Ω	50 Ω	50 Ω
RF Minimum Drive Power	300-350W typical (300W for 5kW)	200W typical	200W typical
Spurious & Harmonic Suppression	Meets or exceed all FCC and CCIR requirements	Meets or exceed all FCC and CCIR requirements	Meets or exceed all FCC and CCIR requirements
Tube	EIMAC 3CX3000A	EIMAC4CX5000A	EIMAC4CX3500A
Output Air Flow	1000 m ³ /h	1000 m ³ /h	1000 m ³ /h
Cooling	Forced ventilation	Forced ventilation	Forced ventilation
Operating Temp. Range	From -10° to +45°C	From -10° to +45°C	From -10° to +45°C
Maximum Humidity	90% non-condensing	90% non-condensing	90% non-condensing
Cabinet Dimensions	565 mm (22.24") W 850 mm (33.46") H 1800 mm (70.86") D	565 mm (22.24") W 850 mm (33.46") H 1800 mm (70.86") D	565 mm (22.24") W 850 mm (33.46") H 1800 mm (70.86") D
Weight	Approx. 490Kg (1089Lbs)	Approx. 370Kg (822Lbs)	Approx. 370Kg (822Lbs)
Options	/MP - Single Phase 220-240V ± 15%, 50-60 Hz opt. /ST - Filament voltage stabilizer option /LCD - Version with LCD display on front panel, able to telemetry management	/MP - Single Phase 220-240V ± 15%, 50-60 Hz opt. /ST - Filament voltage stabilizer option /LCD - Version with LCD display on front panel, able to telemetry management	/MP - Single Phase 220-240V ± 15%, 50-60 Hz opt. /ST - Filament voltage stabilizer option /LCD - Version with LCD display on front panel, able to telemetry management

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**R.F. Power Amplifier
FM 87.5 - 108
MHz range**



**VJ 8000
VJ 10000
VJ 10000 TE**



VJ 10000



VJ 8000

TUBE

	VJ 8000	VJ 10000	VJ 10000 TE
Tube type	Triode	Triode	Tetrode
AC Power Source	Three Phase with neutral: 380-415V ± 15%, Three Phase without neutral: 208-240V ± 15% (Single Phase: 220-240V ± 15%, 50-60 Hz on request)	Three Phase with neutral: 380-415V ± 15%, Three Phase without neutral: 208-240V ± 15% (Single Phase: 220-240V ± 15%, 50-60 Hz on request)	Three Phase with neutral: 380-415V ± 15%, Three Phase without neutral: 208-240V ± 15% (Single Phase: 220-240V ± 15%, 50-60 Hz on request)
Frequency Range	87.5 – 108MHz (Other frequencies on request)	87.5 – 108MHz (Other frequencies on request)	87.5 – 108MHz (Other frequencies on request)
Power Output	8000W typical	11000W max, 10000W typical	11000W max, 10000W typical
Power consumption	Approx 16-17kW	Approx 19-20Kw	Approx 19-20kW
RF Input Connector	N or 7/16" connector type	N or 7/16" connector type	N or 7/16" connector type
RF input Impedance	50 Ω	50 Ω	50 Ω
RF Output Connector	EIA Flange 1+5/8" (EIA Flange 3+1/8" on request)	EIA Flange 1+5/8" (EIA Flange 3+1/8" on request)	EIA Flange 1+5/8" (EIA Flange 3+1/8" on request)
RF Output Impedance	50 Ω	50 Ω	50 Ω
RF Minimum Drive Power	500W typical	500W typical	300W max
Spurious & Harmonic Suppression	Meets or exceed all FCC and CCIR requirements	Meets or exceed all FCC and CCIR requirements	Meets or exceed all FCC and CCIR requirements
Tube	EIMAC 3CX6000A7/YU-148	EIMAC 3CX15000A7	EIMAC 4CX7500A
Output Air Flow	2500 m³/h	2500 m³/h	2500 m³/h
Cooling	Forced ventilation	Forced ventilation	Forced ventilation
Operating Temp. Range	From -10° to +45°C	From -10° to +45°C	From -10° to +45°C
Maximum Humidity	90% non-condensing	90% non-condensing	90% non-condensing
Cabinet Dimensions	565 mm (22.24") W 850 mm (33.46") H 1800 mm (70.86") D	565 mm (22.24") W 850 mm (33.46") H 1930 mm (75.98") D	565 mm (22.24") W 850 mm (33.46") H 1800 mm (70.86") D
Weight	Approx 450Kg (1222Lb)	Approx 700Kg (1556Lbs)	Approx 590Kg (1311Lbs)
Options	/MP - Single Phase 220-240V ± 15%, 50-60 Hz opt. /ST - Filament voltage stabilizer option /LCD - Version with LCD display on front panel, able to telemetry management	/MP - Single Phase 220-240V ± 15%, 50-60 Hz opt. /ST - Filament voltage stabilizer option /LCD - Version with LCD display on front panel, able to telemetry management	/MP - Single Phase 220-240V ± 15%, 50-60 Hz opt. /ST - Filament voltage stabilizer option /LCD - Version with LCD display on front panel, able to telemetry management

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**R.F. Power Amplifier
FM 87.5 - 108
MHz range**



**VJ 12000
VJ 15000**

VJ 12000

VJ 15000

Tube type	Triode	Triode
AC Power Source	Three Phase with neutral: 380-415V \pm 15% Three Phase without neutral: 208-240V \pm 15%	Three Phase with neutral: 380-415V \pm 15% Three Phase without neutral: 208-240V \pm 15%
Frequency Range	87.5 - 108MHz (Other frequencies on request)	87.5 - 108MHz (Other frequencies on request)
Power Output	13000W max, 12000W typical	16000W max, 15000W typical
Power consumption	About 18-20kW	About 28-30kW
RF Input Connector	7/16" type connector	7/16" type connector
RF input Impedance	50 Ω	50 Ω
RF Output Connector	EIA Flange 1+5/8" (EIA Flange 3+1/8" on request)	EIA Flange 1+5/8"
RF Output Impedance	50 Ω	50 Ω
RF Minimum Drive Power	600W max	750W max
Spurious & Harmonic Suppression	Meets or exceed all FCC and CCIR requirements	Meets or exceed all FCC and CCIR requirements
Tube	EIMAC 3CX15000A7	EIMAC 3CX15000A7
Output Air Flow	2500 m ³ /h	2500 m ³ /h
Cooling	Forced ventilation	Forced ventilation
Operating Temp. Range	From -10° to +45°C	From -10° to +45°C
Maximum Humidity	90% non-condensing	90% non-condensing
Cabinet Dimensions	565 mm (22.24") W 850 mm (33.46") H 1930 mm (75.98") D	565 mm (22.24") W 850 mm (33.46") H 1930 mm (75.98") D
Weight	Approx. 700Kg (1556Lb)	Approx. 700Kg (1556Lb)
Options	/ST - Filament voltage stabilizer option /LCD - Version with LCD display on front panel, able to telemetry management	/ST - Filament voltage stabilizer option /LCD - Version with LCD display on front panel, able to telemetry management

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**R.F. Power Amplifier
FM 87.5 - 108
MHz range**



VJ 20000 VJ 20000 TE



TUBE

VJ 20000

VJ 20000 TE

Tube type	Triode	Tetrode
AC Power Source	Three Phase with neutral: 380-415V ± 15% Three Phase without neutral: 208-240V ± 15%	Three Phase with neutral: 380-415V±15% Three Phase without neutral: 208-240V±15%
Frequency Range	87.5 – 108MHz (Other frequencies on request)	87.5 – 108MHz (Other frequencies on request)
Power Output	25000W max, 20000W typical	22000W max, 20000W typical
Power consumption	About 38-40kW	37kW
RF Input Connector	7/16" type connector	7/16" type connector
RF input Impedance	50 Ω	50 Ω
RF Output Connector	EIA Flange 3+1/8"	EIA Flange 3+1/8"
RF Output Impedance	50 Ω	50 Ω
RF Minimum Drive Power	1250W max	600W max
Spurious & Harmonic Suppression	Meets or exceed all FCC and CCIR requirements	Meets or exceed all FCC and CCIR requirements
Tube	3CX15000A7	EIMAC 4CX15000C
Output Air Flow	3000 m ³ /h	3000 m ³ /h
Cooling	Forced ventilation	Forced ventilation
Operating Temp. Range	From -10° to +45°C	From -10° to +45°C
Maximum Humidity	90% non-condensing	90% non-condensing
Cabinet Dimensions	565 mm (22.24") W 850 mm (33.46") H 1930 mm (75.98") D	2 cabinet Approx. 700Kg (1556Lb) each 565 mm (22.24") W 850 mm (33.46") H
Weight	2 cabinet Approx. 680Kg (1511Lb) each	1930 mm (75.98") D
Options	/LCD – Version with LCD display on front panel, able to telemetry management	/LCD – Version with LCD display on front panel, able to telemetry management

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